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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,753	02/20/2004	Damien Le Moal	16869P-105000US	7385

20350   7590   08/22/2005

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EXAMINER
PATEL, KAUSHIKKUMAR M

ART UNIT	PAPER NUMBER
2188	

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	10/783,753	LE MOAL ET AL.
Office Action Summary	Examiner	Art Unit	
	Kaushikkumar Patel	2188	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _20 February 2004 and 22 April 2005_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-10_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☒ Claim(s) _1-10_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _20 February 2004_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _2/20/04 4/22/05_.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

Priority

1.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which

papers have been placed of record in the file.

Information Disclosure Statement

2.   The Information Disclosure Statements filed on 2/20/2004 and 4/22/2005 have

been considered. It is noted that Japanese document 2001-051901 has been

considered to the extent made possible by the English language abstract.

Drawings

3.   The drawings were received on 2/20/2004. These drawings are acceptable.

Specification

4.   The disclosure is objected to because of following informalities:

Page 1, paragraph [0006], lines 1-3, "In the host…processing arise." Should be

"Two problems arise in the host computer accessing data through the network

connected to the storage system, a drop in data transfer rate and an increase in the

amount of time necessary for input/output request processing."

Page 3, paragraph [0013], line 3, "device drives" should be "device drivers".

Page, 4, paragraph [0019], lines, 1-2, "a processing unit...the main storage;"

should be "a processing unit that caches the data retrieved from the main storage in the

cache storage;"

Page 6, paragraph [0037], line 2, "in s104' should be "in step (s104)".

Page 7, paragraph [0037], line 2, "in both s107 and s108" should be "in both

steps (s107) and (s108)".

On page 8, paragraph [0043], line 1, "steps s104 and s105" should be "steps

(s104) and (s105)", and in line 4, "step s104" should be "step (s104)".

On page 12, line 1, "When streaming is sent" should be "When streaming data is

sent".

On page 12, line 3, "device adapter that connects a server" should be "device

adapter that connects a host".

Appropriate corrections required.

Claim Objections

5.   Claims 1-10 are objected to because of following informalities:

Claim 1, line 6-7, "a processing unit...main storage;" should be "a processing unit

that caches, data retrieved from the main storage to the cache storage;".

Claim 2, line 1, "caching processing" should be "cache processing".

All dependent claims are objected to as having the same deficiencies as the

claims they depend from.

Allowable Subject Matter

6.   Claims 1-10 are allowable over the prior art of record, but objected to as set forth

above.

7.   The following is a statement of reasons for the indication of allowable subject

matter:

Satoh et al. (5,640,600) teaches a device adapter with cache memory, a control

memory, and a channel adapter. The channel adapter comprises the bus load

estimating means, bus load measuring means, bus selecting means. The channel

adapter and storage device adapter accesses the bus in accordance with bus mode

selected by the bus mode selecting means. Satoh et al. fails to teach device adapter,

which selects cache storage or main storage depending on load characteristics of cache

storage even after data have already been cached in cache storage.

Tsuboi et al. (5,623,631) teaches a controller which comprises, a cache memory

for storing part of data and a directory for recording management information of

controller and director for controlling the cache and directory, controlling data transfer

between the CPU and the cache or storage unit. Tsuboi teaches directory which

manages management information but fails to teach which of the main storage or cache

to select depending upon the load of cache storage.

Day III et al. (US 2001/0011325 A1) teaches the disk caching method with

intermediary controller. The caching method asynchronously requests the data from

both the main storage and intermediary cache. The intermediary controller selects the

main storage or intermediary cache depending upon the hit ratio. The method fails to

teach selecting main storage or cache storage after data have already been cached.

Liu et al. (US 2004/0117441 A1) teaches a method and system directed to

reduce the bottleneck to storage. Liu teaches data aware data flow manager determines

which data to cache and which data to pipe directly through. The data flow manager

caches the selected data, but fails to teach the method of selecting either main storage

or cache storage after finding that the data already has been cached, depending on the
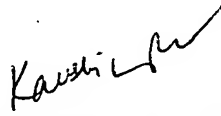
load of the cache storage.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kaushikkumar Patel whose telephone number is 571-

272-5536. The examiner can normally be reached on 8.00 am - 4.30 pm.
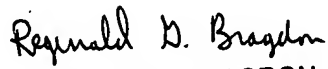
If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Kaushikkumar Patel
Examiner
Art Unit 2188

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REGINALD G. BRAGDON
PRIMARY EXAMINER